

IN THE CLAIMS:

Claims 1-77 (canceled).

Claim 78 (Previously added and previously amended) A microparticle comprising a core and electrochemiluminescent moieties within said core, wherein said electrochemiluminescent moieties are metal-containing electrochemiluminescent moieties.

79. (Previously added) The microparticle of claim 78, wherein said electrochemiluminescent moieties are blended within said core.

80. (Previously added) The microparticle of claim 78, wherein said core is polymeric and said electrochemiluminescent moieties are blended within said core.

81. (Previously added) The microparticle of claim 78, wherein said core comprises plastic and said electrochemiluminescent moieties are blended with said plastic to form said core.

82. (Previously added) The microparticle of claim 78, wherein said electrochemiluminescent moieties are enclosed within said core.

83. (Previously added) The microparticle of claim 78, wherein said core is a liposome and said electrochemiluminescent moieties are enclosed within said liposome.

84. (Previously added) The microparticle of claim 78, wherein said core comprises pores and said electrochemiluminescent moieties are enclosed within said pores.

85. (Previously added) The microparticle of claim 78, wherein said electrochemiluminescent moieties comprises transition metals.

86. (Previously added) The microparticle of claim 78, wherein said electrochemiluminescent moieties comprises Ru, Os, or Re.

87. (Previously added) The microparticle of claim 78, wherein said core is electrically conductive.

88. (Previously added) The microparticle of claim 78, wherein said core comprises metal.

89. (Previously added) The microparticle of claim 78, wherein said core comprises gold, silver, platinum, palladium, zinc, iron, nickel, lead or copper.

90. (Previously added) The microparticle of claim 78, wherein said core comprises gold, silver, platinum, or palladium.

91. (Previously added) The microparticle of claim 78, wherein said core comprises gold.

92. (Previously added) The microparticle of claim 78, wherein said core comprises carbon.

93. (Previously added) The microparticle of claim 78, wherein said core comprises carbon black, graphitic nanotubes or fullerenes.

94. (Previously added) The microparticle of claim 78, further comprising an assay ligand.

95. (Previously added) The microparticle of claim 94, wherein said assay ligand is selected from the group consisting of proteins, nucleic acids, lipids, steroids, carbohydrates, porphyrins, alkaloids, nucleotides, nucleosides, amino acids, fatty acids, viruses, microorganisms, biological cells, and subcellular particles.

96. (Previously added) The microparticle of claim 94, wherein said assay ligand is selected from the group consisting of proteins and nucleic acids.

97 (Previously added and previously amended) An assay composition comprising the microparticle of claim 78 and at least one assay component selected from the group consisting of electrochemiluminescence co-reactant and binding reagent.

98. (Withdrawn).

99. (Previously added) The microparticle of claim 78, further comprising one or more copies of an assay-ligand immobilized on its surface.

100. (Previously added) A microparticle comprising metal-containing electrochemiluminescent moieties within said microparticle.

101. (Withdrawn).

Please add the following new claims:

102. (New) The microparticle of claim 78, wherein said microparticle has a diameter greater than 5 nanometers.

103. (New) The microparticle of claim 78, wherein said microparticle has a diameter between 5 nanometers and 10 micrometers.

104. (New) The microparticle of claim 78, wherein said microparticle has a diameter between 20 nanometers and 200 micrometers.

105. (New) The microparticle of claim 78, wherein said microparticles are spherical, oblong, rod-like or irregular in shape.